AMENDMENTS TO THE SPECIFICATION

Please amend Paragraphs 6, 7, 20, 27, 32, 33, 45, 64, 66 and 78 of the specification as follows:

[Para 6] (d) copending Application Serial No. 10/879,335, filed June 29, 2004 (Publication No. 2005/0024353), which claims benefit of the Provisional Applications Serial Nos. 60/481,040, filed June 30, 2003; 60/481,053, filed July 2, 2003; and 60/481,405, filed September 22, 2003~~ (see also International Application No. PCT/US2004/21000, which corresponding in substance to Application Serial No. 10/879,335~~.

[Para 7] The aforementioned copending Application Serial No. 10/879,335 is also a continuation-in-part of copending Application Serial No. 10/814,205, filed March 31, 2004 (Publication No. 2005/0001812), which itself claims benefit of the following Provisional Applications: (1) Serial No. 60/320,070, filed March 31, 2003; (2) Serial No. 60/320,207, filed May 5, 2003; (3) Serial No. 60/481,669, filed November 19, 2003; (4) Serial No. 60/481,675, filed November 20, 2003; and (5) Serial No. 60/557,094, filed March 26, 2004.

[Para 20] Numerous patents and applications assigned to or in the names of the Massachusetts Institute of Technology (MIT) and E Ink Corporation have recently been published describing encapsulated electrophoretic media. Such encapsulated media comprise numerous small capsules, each of which itself comprises an internal phase containing electrophoretically-mobile particles suspended in a liquid suspending medium, and a capsule wall surrounding the internal phase. Typically, the capsules are themselves held within a polymeric binder to form a coherent layer positioned between two electrodes. Encapsulated media of this type are described, for example, in U.S. Patents Nos. 5,930,026; 5,961,804; 6,017,584; 6,067,185; 6,118,426; 6,120,588; 6,120,839; 6,124,851; 6,130,773; 6,130,774; 6,172,798; 6,177,921; 6,232,950; [[6,249,721]]6,249,271; 6,252,564; 6,262,706; 6,262,833; 6,300,932; 6,312,304; 6,312,971; 6,323,989; 6,327,072; 6,376,828; 6,377,387; 6,392,785; 6,392,786; 6,413,790;

6,422,687; 6,445,374; 6,445,489; 6,459,418; 6,473,072; 6,480,182; 6,498,114; 6,504,524; 6,506,438; 6,512,354; 6,515,649; 6,518,949; 6,521,489; 6,531,997; 6,535,197; 6,538,801; 6,545,291; 6,580,545; 6,639,578; 6,652,075; 6,657,772; 6,664,944; 6,680,725; 6,683,333; 6,704,133; 6,710,540; 6,721,083; 6,727,881; 6,738,050; 6,750,473; and 6,753,999; and U.S. Patent Applications Publication Nos. 2002/0019081; 2002/0021270; 2002/0060321; [[2002/0060321;]]2002/0063661; 2002/0090980; 2002/0113770; 2002/0130832; 2002/0131147; 2002/0171910; 2002/0180687; 2002/0180688; 2002/0185378; 2003/0011560; 2003/0020844; 2003/0025855; 2003/0038755; 2003/0053189; 2003/0102858; 2003/0132908; 2003/0137521; 2003/0137717; 2003/0151702; 2003/0214695; 2003/0214697; 2003/0222315; 2004/0008398; 2004/0012839; 2004/0014265; 2004/0027327; 2004/0075634; 2004/0094422; 2004/0105036; 2004/0112750; and 2004/0119681; and International Applications Publication Nos. WO 99/67678; WO 00/05704; WO 00/38000; WO 00/38001; WO00/36560; WO 00/67110; WO 00/67327; WO 01/07961; WO 01/08241; WO 03/107,315; WO 2004/023195; and WO 2004/049045.

[Para 27] The manufacture of a three-layer electro-optic display normally involves at least one lamination operation. For example, in several of the aforementioned MIT and E Ink patents and applications, there is described a process for manufacturing an encapsulated electrophoretic display in which an encapsulated electrophoretic medium comprising capsules in a binder is coated on to a flexible substrate comprising indium-tin-oxide (ITO) or a similar conductive coating (which acts as [[an]]one electrode of the final display) on a plastic film, the capsules/binder coating being dried to form a coherent layer of the electrophoretic medium firmly adhered to the substrate. Separately, a backplane, containing an array of pixel electrodes and an appropriate arrangement of conductors to connect the pixel electrodes to drive circuitry, is prepared. To form the final display, the substrate having the capsule/binder layer thereon is laminated to the backplane using a lamination adhesive. (A very similar process can be used to prepare an electrophoretic display useable with a stylus or similar movable electrode by replacing

the backplane with a simple protective layer, such as a plastic film, over which the stylus or other movable electrode can slide.) In one preferred form of such a process, the backplane is itself flexible and is prepared by printing the pixel electrodes and conductors on a plastic film or other flexible substrate. The obvious lamination technique for mass production of displays by this process is roll lamination using a lamination adhesive. Similar manufacturing techniques can be used with other types of electro-optic displays. For example, a microcell electrophoretic medium or a rotating bichromal member medium may be laminated to a backplane in substantially the same manner as an encapsulated electrophoretic medium.

[Para 32] The precise conditions under which these effects become visible depend upon the type of electro-optic medium used, as well as the thicknesses of the electro-optic medium and adhesive layers. Also, the visible effects occur along a continuum, and setting points at which the effects become unacceptable is essentially arbitrary, and may vary depending upon the tolerance of the intended application of the display to either slow switching or field spreading/blurring. For example, obviously a display, such as an electronic book reader, intended only to display static images, can tolerate a much slower switching rate than a display, such <u>as</u> a cellular telephone display, which may sometimes be required to display video images.

[Para 33] While it <u>is</u> ordinarily desirable to maintain the conductivity of the lamination adhesive within a range which avoids such image problems, it may be necessary to increase the conductivity of the adhesive to a value which tends to cause such image defects to obtain improved switching speed, especially at temperatures substantially below room temperature, and such high conductivity adhesive may result in an increased amount of pixel blooming and edge ghosting. Furthermore, given all the other chemical and mechanical constraints upon the choice of lamination adhesive, as discussed in the aforementioned applications, there may be specific displays for which it is not reasonably possible to find a lamination adhesive which can completely avoid the image problems discussed above under all operating conditions, at least when using

certain standardized drive schemes for such displays. Accordingly, it is desirable to be able to vary the drive scheme (i.e., the sequence of voltages and times of the various pulses used to effect transitions between the various optical states of the pixel of an electro-optic display) in order to reduce the aforementioned problems, and the present invention relates to methods using appropriately modified drive schemes.

[Para 45] The synchronized cut-off method of the present invention may be used in pulse width modulated drive schemes in which the rewriting of the display is effected by applying to each pixel any one or more of the voltages -V, 0 and +V, where V is an arbitrary voltage. Also, for reasons explained in the aforementioned copending Application Serial No. 10/879,335, with many electro-optic media it is desirable that the drive scheme used [[by]]be DC balanced, in the sense that the rewriting of the display is effected such that, for any series of transitions undergone by a pixel, the integral of the applied voltage with time is bounded. Furthermore, for reasons described in the same application, it is desirable that the rewriting of the display be effected such that the impulse applied to a pixel during a transition depends only upon the initial and final gray levels of that transition.

[Para 64] As already noted, in the situation shown in Figure 2, in which both pixels are driven ~~in the same~~ simultaneously but in opposite directions, no blooming occurs. (Furthermore, obviously blooming is not a problem if both pixels are driven simultaneously in the same direction.) If one switches a display which has been in the Figure 1 situation for a substantial period, so that substantial blooming is already present, to the Figure 2 situation, a relaxation effect occurs causing the extent of blooming to decrease with time. Thus, blooming which has been brought about in a ~~Figure 1~~ situation such as that shown in Figure 1 can be removed by placing the display in the Figure 2 situation (or the similar situation in which both pixels are driven simultaneously in the same direction) for a period sufficient to allow the blooming to disappear.

[Para 66] It should be noted that the synchronized cut-off method of the present invention does not require that all pixels be driven right to the end of each waveform,

only that the cut-off of drive voltage to each pixel be substantially simultaneous. It is common practice to reduce all drive voltages to zero (i.e., to set all the pixel electrodes to the same voltage as the common front electrode) for some period at the end of a rewrite of an electro-optic display in order to prevent residual voltages remaining on certain pixel electrodes causing "drift" in the gray levels of certain pixels [[are]]after the rewrite. The synchronized cut-off method is compatible with the use of such a zero drive voltage period at the end of a rewrite.

[Para 78] Blooming can also be reduced by increasing the size of the pixel storage capacitors often provided on electro-optic displays. Such storage capacitors are provided to enable driving of the electro-optic medium to be continued even when the relevant line of pixels are not selected, as described in, for example, the aforementioned WO 01/07961[[,]] and WO 00/67327, and in U.S. Patent Publication No. 2002/0106847 (now U.S. Patent No. 6,683,333). Increasing pixel capacitance reduces the voltage applied to a non-driven pixel as a result of a given amount of charge leakage between pixels, and thus reduces the undesirable effects on the image of such charge leakage. However, increasing the size of the pixel storage capacitors requires redesign of the active matrix backplane, whereas the changes in drive schemes mentioned above can be implemented by a minor electronics change, or in software.